

**TDSL Project Title: Electronic Waste Management**  
**Semester: 2nd**  
**Team members:**

1. Aditya Jain (193050028)
2. Kartavya Kothari (193050021)
3. Karthik Prakash (193050008)

**Guide/coordinator:** Prof. Sudhanshu Mallick

Visit Report for trip to Powai Market, IIT Market on 3rd Feb, 2020

**Visit date: 3rd Feb, 2020**

**Location details: Powai Market, IIT Market, Powai, Mumbai- 400076**

**Participants:**

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2. Kartavya Kothari (193050021)
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### **Agenda**

- To understand the initial phase of the disposal cycle of Electronic waste. ( from owners to Bhangarwalas )

### **Trip proceedings:**

- **Left campus at 5:05 PM**, took an auto rickshaw to IIT Market.
- **Reached site at 5:45 PM.**
- Visited various Bhangar shops located in IIT Market and Powai Market.

### **Key Findings**

- There are **3 different chains** that the scrap goes through as a part of its processing from owner to the recycling shop.
  - o Owner throws the scrap in **the dustbin along with the dry waste.**
  - o Kabadiwalas collect the scrap from various owners and **dismantle it to sell the reusable parts: Eg: motors, wires, capacitors, etc.**
  - o Kabadiwalas collect the scrap from various owners and **the recycling dealers take them in bulk from such kabadiwalas and put it into the recycling machine.**
- **Major problems faced by local kabadiwalas:**
  - o **E-waste licence:** We asked the kabadiwalas about the actual process the scrap goes through before getting recycled. They mentioned that they don't take too much effort in separating the types of scrap as it is of no

value to them anyway. They directly export it in bulk to the wholesale markets and earn their profits on it. When we asked them the reason behind not trying to sell the separate parts to the users in need, they mentioned that for doing so legally, **a particular licence called E-waste licence is required. The major reason behind them not applying for this is the high expenses in getting it renewed.** (15-20 lakhs per annum, as per his knowledge)

- o **Low earning:** They mentioned that once the item lands to their shop, its price gets exponentially decreased. Even if the quality remains intact, the fact that it is available at a Kabadi shop is enough for the customers to bargain to a rate as low as 1/100th of the actual cost of the product.
- o Examples: (real life experiences shared by kabadiwalas):
  - They brought a TV which was hardly a month old but was having some display dysfunctioning. The **original cost of the TV was 50,000 Rs.** When customers came to their shop to purchase it, they asked the kabadiwalas to sell it for **mere 250 Rs.** Kabadiwalas refused to sell it and ended up making **400 Rs by dismantling the TV and selling its separate parts to relevant customers** and most of it to the recycling trucks. This indicates the reason behind kabadiwalas directly sending the electronic items along with the other dry wastes such as plastic, iron, steel, brass, aluminium, etc. for recycling purpose rather than trying to dispose it separately as an E-waste.
  - One of the kabadiwalas took a contract of around 15-20 cupboards from **CSRE department, IIT Bombay**. He mentioned that the quality being so good, it would be a huge loss for him to sell it at his shop due to the above mentioned problem. What he did is bid for his product on some **online auction site** where he can bid for his own rate based on the requirements of the market. This way the same product can get a high amount just because it's not kept at a kabadi shop. Due to such cases, they are not willing to put some effort in separating out the electronic wastes from the dry waste as still it's not going to help them make any money.

### **Tentative agenda for next trip:**

- For the next field visit, we plan to visit the next higher level in this supply chain, which is the recycling market, located at Khairani Road, Sakinaka, Mumbai-400072.

### **Photos with captions:**

- At the time of passing through the **Tinkerers Lab of IIT Bombay**, we came across this Bin specifically assigned to dispose of E-waste. As per the environment on campus, it seems that **our campus does take some measures in order to dispose of the E-waste separate from the dry waste**. We plan to get through this chain as well along with the help from the Tinkerers lab students to get to know more about the disposal process of this E-Bin.



